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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,399	04/10/2000	Richard D. Hull	108949.101	2277

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HALE & DORR LLP  
THE WILLARD OFFICE BUILDING  
1455 PENNSYLVANIA AVE, NW  
WASHINGTON, DC 20004

EXAMINER

MORAN, MARJORIE A

ART UNIT

PAPER NUMBER

1631

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.	Applicant(s)	
09/546,399	HULL ET AL.	
Examiner	Art Unit	
Marjorie A. Moran	1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on 12/2/03.

2a) This action is **FINAL**.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1,2,4-8 and 22-29 is/are pending in the application.

4a) Of the above claim(s) 25-29 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1,2,4-8 and 22-24 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) Notice of References Cited (PTO-892)                          4) Interview Summary (PTO-413)  
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                  Paper No(s)/Mail Date. \_\_\_\_\_  
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)                  5) Notice of Informal Patent Application (PTO-152)  
                        Paper No(s)/Mail Date \_\_\_\_\_                          6) Other: \_\_\_\_\_

***Election/Restrictions***

Newly submitted claims 25-29 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the new claims are directed to methods which recite different method steps and are directed to different results than is the elected method of original claims 1-8. As the claims of the new methods recite different method steps, they would require a separate search than a search for the originally elected method.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 25-29 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

An action on the merits of elected claims 1-2, 4-8 and 22-24 follows. All objections and rejections not reiterated below are hereby withdrawn.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 8 is again rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the

time the application was filed, had possession of the claimed invention. This is a LACK OF WRITTEN DESCRIPTION rejection.

Claim 8 recites an "identity matrix I". The specification recites the phrase "identity matrix I" on page 9, but does not otherwise identify or describe such a matrix. The specification further discloses that "the identity matrix I" may be used in place of  $\Sigma_k$  to calculate similarities, but again does not describe or exemplify an "identity matrix I". As the specification does not fully and completely describe an "identity matrix I", claim 8 is rejected for lack of written description.

Applicant's arguments filed 12/2/03 have been fully considered but they are not persuasive. In response to the argument that the originally filed claims are part of the original disclosure and thus constitute a written description, it is noted that limitations of the claims must nonetheless be completely described SOMEWHERE, whether in the specification, claims, or drawings, such that one skilled in the art would be able to envision the claimed invention. Claim 8 recites that a matrix  $\Sigma_k$  comprise an identity matrix I. It is noted that  $\Sigma$  is defined in claim 4; however, it is not clear whether matrix I is intended to be the same as  $\Sigma_k$  (not indicated by the language of the claims) or is intended to be PART OF the matrix  $\Sigma_k$ . If the latter, then the examiner maintains that such a matrix is not described or defined anywhere in the specification or claims, and maintains the rejection.

Claims 1-2, 4-8 and 22-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in

such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This is a NEW MATTER rejection.

A method for calculating the similarity of a chemical compound to a probe wherein entries of a matrix comprise a mathematical function of "the weighting" of each descriptor of a chemical compound, is new matter. The original claims did not recite any limitations with regard to "weighting" entries into a matrix. The originally filed specification discloses on page that the value of a matrix element may be the frequency of a descriptor in each molecule, taken from a database. There is no disclosure that this value is the result of a "mathematical" function, nor that the value represents a "weighting" of the descriptor (i.e. a mean or other result of statistical manipulation). Applicant does not point to support for the new limitation of claim 1 and none is apparent, as set forth above, therefore the claims are rejected for reciting new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2, 4-8 and 22-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the weighting" in line 8. There is insufficient antecedent basis for this limitation in the claim, therefore the claim is indefinite.

Art Unit: 1631

Claim 8 recites “an identity matrix I”. An “identity matrix I” is not described or exemplified by the instant specification, as maintained above. As one skilled in the art would not know the metes and bounds of an “identity matrix I”, the claim is indefinite. Applicant has not set forth any arguments specific to this rejection and the amendment has not overcome the rejection, therefore it is maintained.

Claim 24 recites that a variable “is the least squared closest to X”. This is nonsensical and it appears that a term is missing. As one skilled in the art would not know what the variable is intended to be the “least squared” of, the claim is indefinite.

### ***Conclusion***

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

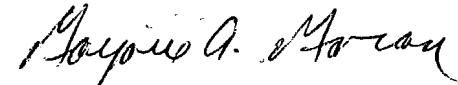
Art Unit: 1631

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marjorie A. Moran whose telephone number is (571) 272-0720. The examiner can normally be reached on Mon. to Wed, 7:30-4; Thurs 7:30-6; Fri 7-1 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571)272-0722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Marjorie A. Moran  
Primary Examiner  
Art Unit 1631

mam